

US-PAT-NO: 5984507

DOCUMENT-IDENTIFIER: US 5984507 A

TITLE: Mail processing system with diagnostic facilities

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INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
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US-CL-CURRENT: 700/220; 700/11 ; 700/117 ; 700/122 ; 700/124 ; 700/125 ; 700/145

ABSTRACT: A system comprising a mail processing apparatus includes a number of processing stations such as for instance a printer and an inserter. In addition, the system comprises a control system which controls at least one processing station for assembling sheets to form at least one document to be mailed or for processing received documents. The system further comprises at least one external diagnostic device separate from the mail processing apparatus and a communication channel between the control system and the diagnostic device. The control system is arranged for performing diagnostic tests for detecting, for instance, malfunctions, deviations in performance and/or required preventive maintenance in a processing station. The diagnostic device initializes via the communication channel the performance of said tests and/or receives the results of the tests for further processing.

31 Claims, 1 Drawing figures

Exemplary Claim Number: 30

Number of Drawing Sheets: 1

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Detailed Description Text - DETX: In particular, for obtaining diagnostic information, the diagnostic device processes measurement and setting data relating to different instants in combination. Because the measurement and setting data relate to different instants, a statistical analysis can be performed. On the basis of this statistical analysis, which relates, for instance, to changes in the measurement and setting data over time, it can for instance be concluded that the change in the measuring and setting data over time is too large, in other words, that a fault is present and/or that maintenance is required. Also, on the basis of the course of the measurement and setting data over time it can be predicted when these measurement and setting data can be expected to fall outside the associated measuring and adjustment range. In this manner it can be predicted when a fault can be expected to occur or maintenance can be expected to be required. In addition to the measuring and adjustment range, the control system 8 can also feed a type or registration number of the various processing stations and/or the mail processing apparatus to the diagnostic device 6. On the basis of these data, the diagnostic device 6 can for instance determine the adjustment range and/or measuring range. In that case, therefore, the adjustment range and the measuring range need not be supplied from the local control system 8 to the central diagnostic device 6. In that case the diagnostic device 6 includes a data bank storing the adjustment and measuring ranges for different types of mail processing stations and/or mail processing apparatuses. However, the measuring and adjustment ranges need not necessarily be stored in correspondence with the type and/or registration designations. It is essential, however, that at a

given time the diagnostic device comprises an adjustment range and/or a measuring range in order to be able to compare the range(s) with setting and/or measurement data, for the purpose of obtaining diagnostic information.